

Herbal hair oil: Formulation and evaluation

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Abstract

Herbal cosmetics have burgeoning demand and in the world market and it is inestimable gift of nature. These are wide spans of herbal cosmetic products to satisfy beauty regime. Herbal hair oil not only moisturizes scalp but also converse dry scalp and dry hair conditions. Herbal hair oil helps in intensive hair treatments.

Keywords: herbal cosmetics, phytochemical, phytochemicals, evaluation

1. Introduction

Herbal Hair oils are the hair care preparations used for the prevention and treatment of baldness or other ailments, aggression of hair. They also promote the luxurious growth of hairs. Hair oil containing herbal drugs these are used as in hair tonic. Hair care products are divide into two main category, hair tonics and hair grooming aids. These are in basically the extracts of medicinal plants in an oil base. A plethora are herbs have been employed for the hair treatments. A few of these herbs are Amla, Henna, Neem, Methi, Lemon, Tulsi, Brahmi, Shikakai, Reetha, Liquorice

root, Musk root, Mahabhringraj, Jantamasi, Chitraka, Marigold, Hibiscus, Nutmeg, Parsley, Rosemary, Thyme (Bhatia, 2001) The concept of beauty and cosmetics is as ancient as mankind and civilization. So, they use as various beauty products they have herbs to look charming and young. Cosmetics include skin-care creams, powder, lotion, lipsticks, perfumes, fingernail and toe nail polish, eye and facial makeup, permanent waves, colored contact lenses, hair colors, hair sprays and gels, deodorants, baby products, bath oils, bubble baths, bath salts, butters and many other types of products. Herbal hair oil are prevention of hair loss.

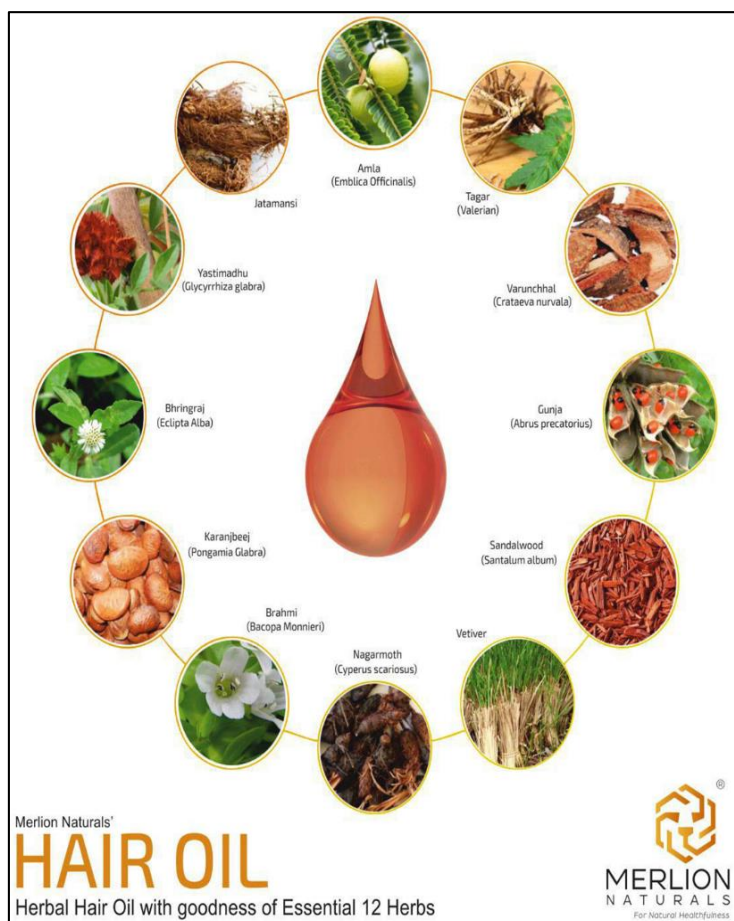


Fig 1: Herbal Hair Oil with goodness of Essential 12 Herbs.



Fig 2: Natural hair growth oils

2. Collection of plant material

The polyherbal hair oil was prepared by collecting various plant materials like, curry leaves, from herbal garden and vetiver roots, methi seeds and amla fruits were procured from local market.

1. Amla

- Biological source: Dried fruits of phyllanthus Emblica
- Family: Phyllanthaceae
- Use: hair conditioner, treats scalp ailments, promotes hair growth.



Fig 3

2. Curry Leaves

- Biological source: Dried leaves of Murrayakoenigii

- Family: Rutaceae.
- Use: Prevents hairfall and premature greying of hair



Fig 4

3. Coconut oil

- Biological source: Oil derived from dried fruits of Cocosnucifera.
- Family: Arecaceae.
- Use: moisturiser, vehicle, stimulates hair growth by unclogging pores.



Fig 5

4. Henna

- **Biological source:** Dried leaves of Lawsonia inermis
- **Family:** Lythraceae.
- **Use:** hair colorant, helps in hair growth



Fig 6

5. Allium Cepa

- **Biological Source:** The onion (*Allium cepa* L., from Latin cepa "onion"), also known as the bulb onion or common onion, is a vegetable and is the most widely cultivated species of the genus *Allium*.
- **Family:** Amaryllidaceae
- **Use:** It reduce hair loss by improving blood circulation in the scalp and hair. The sulphur in the juice helps in the production of essential collagen that promotes hair growth.



Fig 7

6. Garlic

- **Biological source:** Garlic (scientific name *Allium sativum*) is a species in the onion genus, *Allium*. Its close relatives include the onion, shallot, leek, chive, and

Chinese onion.

- **Family:** Amaryllidaceae.
- **Use:** Garlic could end your hair loss problems because of its high levels of allicin, a sulphur found to effectively treat hair loss.



Fig 8

7. Neem

- **Biological source:** Neem consist of fresh or dried leaves and seed oil of *Azadirachta indica* j. Juss.
- **Family:** Meliaceae Aloe
- **Use:** It can protect treat various fungal infection on the skin and nails.



Fig 9

8. Aloe

- **Biological source:** aloe is the dried juice collected by incision from the bases of the leaves of various species of *Aloe Barbadosis*.
- **Family:** Asphodelaceae.
- **Use:** It also acts as a great conditioner and leaves your hair all smooth and shiny. It promotes hair growth, prevents itching on the scalp, reduces dandruff and conditions your hair.



Fig 10

9. Ashwagandha

- **Biological source:** Ashwagandha consist of the dried roots stem bases of *Withaniasomnifera*.

- **Family:** Solanaceae
- **Use:** Prevent hair loss and premature greying of hair with Ashwagandha which activates hair.



Fig 11

10. Jatamansi

- **Biological source:** it consist of dried rhizomes stolons and roots of Valerianawallichii.
- **Family:** Valerianaceae
- **Use:** Jatamansi is one of the common herbs in Ayurvedic medicine that help in getting good hair growth. This can treat your hair growth in number of ways. Formulation of Oil.



Fig 12

3. Methods used for preparation of herbal hair

Following methods are used to prepare herbal hair oil 1. Cloth method. 2. Paste method 3. Direct method

1. Cloth method

The dried drug was weighed and tied in a muslin cloth. This cloth was then hanged in coconut oil base, with continuous boiling, stirring and finally the oil was filtered.

2. Paste method

In this method fresh fruit or plants are used. Take a part of plants were converted into paste while adding little amount of water. Kept overnight and mixed in coconut oil base and boiling with continue stirring and oil is filtered through musli cloth.

3. Direct Boiling method

The crude drugs were powdered, weighed and directly boiled in coconut oil with continuous stirring and heating until the drug had completely extracted.

4. Evaluation of herbal hair oil

The formulated herbal hair oil was subjected to physical and biological evaluation.

Sensitivity test

The prepared herbal hair oil was applied on 1 cm skin of hand and exposed to sunlight for 4-5 min.

Acid value

Preparation of 0.1 molar solution: Weighed 0.56 g KOH pellets and dissolved in 100 mL of distilled water and stirred continuously. The prepared 0.1 molar KOH solution was filled in the burette. Preparation of sample: Measured 10 mL oil and dissolved in 25 mL of ethanol and 25 mL of ether mixture and shacked. Added 1 mL of phenolphthalein solution and titrated with 0.1 molar KOH solution.

Saponification value

Accurately weighed 1 mL of oil into a 250 mL of conical flask and 10 mL of ethanol: ether mixture (2:1) was added. To this flask 25 mL of 0.5 N alcoholic KOH was kept the flask for 30 min. and the flask was cooled. The cooled solution was titrated against 0.5 N HCl using phenolphthalein indicator. Similarly the blank titration was performed without taking oil (sample). Amount of KOH in mg used was calculated.

ph

The pH of herbal hair oil was determined using pH meter.

Viscosity

The viscosity was determined using Ostwald’s viscometer.

Specific gravity

Take the specific gravity bottle, rinsed it with distilled water, dry it in oven for 15 minutes, cool, closed it with cap and weigh it (a). Now fill the same specific gravity bottle with the sample and closed it with cap and again weigh it (b). Determine the weight of sample milliliter by subtracting the weight (b-a)

Table 1: Ingredients used in formulation of herbal hair oil

Sr. No.	Ingredient	Quantity (gm)
1.	Amla	10 gm
2.	Curry leaves	8 gm
3.	Coconut oil	40 gm
4.	Henna	2 gm
5.	Allium cepa	10 gm
6.	Garlic	5 gm
7.	Neem	5 gm
8.	Aloe	3 gm
9.	Ashwagandha	2 gm
10.	Jatamansi	10 m

All the herbs except were dried, powdered and mixed with coconut oil. They were boiled for half an hour and were filtered through muslin cloth was added towards end and stored for further use.

5. Results and Conclusion

Herbal hair oil is recognized hair treatments. It provides numerous essential nutrients required to maintain normal function of sebaceous glands and promotes natural hair

Growth. The utilization of herbal cosmetics enhanced many folds in personal hygiene and healthcare system. which are essential for maintaining healthy and beautiful hairs. The herbal hair oil was prepared from various herbs (Table 1) and their role of herbs in herbal oil is presented in Table 2. The various parameters of herbal hair oil was evaluated (Table 3). Hence it can be concluded that, from the present investigation it was found that the formulated herbal hair oil has optimum standards and further standardization and biological screening establishes the efficacy of formulated herbal hair oil, this herbal hair oil formulation has significant quality.

Table 2: Role of herbs in herbal hair oil

Roll No.	Ingredients	Role of Ingredients
1.	Argon Oil	Moisturizes Hair & Skin
2.	Jajoba Oil	Promotes Skin & Hair health
3.	Jatamansi Oil	Promotes New Hair growth
4.	Bhringraj Oil	Prevents Premature Graying
5.	Coconut Oil	Makes Hair Soft & shine
6.	Sweet Almond Oil	Treats Hair Loss
7.	Cinnamon Oil	Prevents Hair fall
8.	Brahmi Oil	Promotes Hair growth
9.	Tea tree Oil	Stimulates Hair Follicles
10.	Hartiki	Prevent Hair Fall
11.	Vitamin E Oil	Repairs Damaged hair
12.	Amla oil	Reduces Hair Loss
13.	Neele	Prevents Premature Greying of hair
14.	Neroli Oil	Revitalize hair
15.	Lemongrass Oil	Strengthens Hair
16.	Rosemary oil	Stimulates Hair
17.	Lal Chandan	Nourishes Hair
18.	Aloevera	Prevent Hair loss
19.	Bay Oil	Improves Blood Flow to Hair

Table 3: Evaluation of herbal hair oil

Sr.no.	Evaluation parameter	Inference
1.	Specific gravity	1.096
2.	Viscosity	0.93
3.	Acid value	4.5
4.	Saponification value	115.05
5.	pH	6.8
6.	Sensitivity test	No irritation
7.	Grittiness	Smooth

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Marketed Products



Fig 13

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